thirty-eight are filled with Coleoptera. This is a purely Canadian collection, almost entirely from Ontario. The specimens have in nearly all cases been named by specialists when they were brought together for the Philadelphia Exhibition, and are therefore most valuable for reference and comparison; but unfortunately date and locality labels were not thought of so much importance in those days as they are now, and comparatively few are provided with them.

A walnut cabinet of fifteen drawers contains North American species of Hymenoptera (five drawers). Diptera (two), Neuropteroid insects (two), Odonata (three), Hemiptera (two) and one of Orthoptera. These are for the most part collections made many years ago, with very few recent additions. The Neuropteroid specimens were named by the late Dr. Hagen, of Harvard University. The Society has a very meagre collection of insects outside of the Lepidoptera and Coleoptera, contributions of specimens of any other orders would, therefore, be most acceptable.

In addition to the foregoing, the Society possesses a large number of book-boxes containing a great number of Coleoptera from California, and many specimens of British and exotic Lepidoptera. All the collections are carefully gone over at least twice a year to guard against any injury from Anthrenus or other museum pests.

A NEW SARCOPHAGA FROM NEW YORK.

BY R. R. PARKER, STATE COLLEGE, BOZEMAN, MONTANA.

Sarcophaga fulvipes dissidia, n. subsp.

1914. *Sarcophaga fulvipes nigra** Parker, Proc. Bos. Soc. Nat. Hist., vol. 35, No. 1, pp. 38, 40, 41. Characters.

1916. *Sarcophaga fulvipes* var., Aldrich, *Sarcophaga* and Allies, p. 184.

Holotype ♂.—Collection of C. W. Johnson, Boston, Mass. (♂) Posterior trochanter without "brush;" femur arched, its anterior face without ventral row of bristles (only a single distal bristle present); anterior and posterior faces of tibia each with a

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* *S. fulvipes dissidia* was referred to in part one as *S. fulvipes nigra*, but *nigra* has since been found to be preoccupied; therefore, the subspecies is described under the name *dissidia*.

very thick beard of very long, coarse hairs extending full length of tibia; middle femur clothed beneath nearly to distal extremity with long hair, posterior ventral row of bristles represented only by a few short bristles on about distal fifth; tibia clothed beneath on about its distal half with long, dense hair that anteriorly and posteriorly becomes coarser and beard-like, submesotibial bristle absent; vestiture of third ventral plate short and erect; genital segments dull orange, vestiture of both equally long, first large and without marginal bristles (possibly variable).

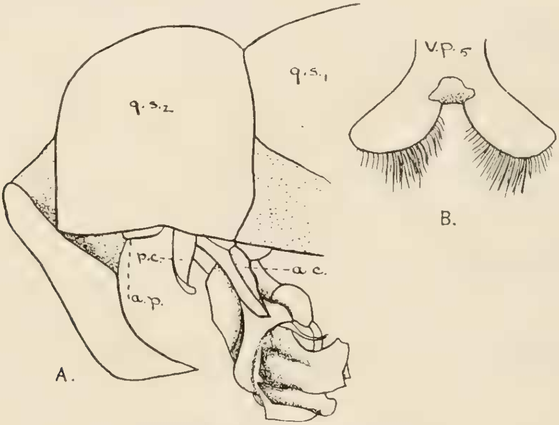

Fig. 7.—*Sarcophaga fulvipes dissidia,* n. subsp. A, Genital segments of ♂; B, fifth ventral plate of ♂.

Head.—Viewed from side, parafrontals and genæ with dark reflections. Breadth of front at narrowest part about three-fifths eye width; cheek height approximately one-third that of eye. Front prominent, sides of frontal vitta slightly converging backward. Second antennal segment dark; third about twice length of second; arista plumose on basal two-thirds. Back of head somewhat convex, with three rows of black cilia behind eyes, otherwise clothed with yellowish white hair that completely covers the metacephalon. Cheeks clothed with black hair. Gena with a single row of bristle-like hairs near lower eye orbit. Palpi dark.

Chætotaxy.—Lateral verticals absent; vibrissæ inserted just above line of oral margin.

Thorax.—Mesonotum clothed with erect, almost bristle-like hair. Hairs covering anterior spiracle dark brown basally becoming lighter toward tips; those of anterior margin of posterior spiracle dark brown; those of spiracular cover light yellowish brown with yellowish tips. Epaulets dark.

Wings.—Bend of a fourth vein a right angle; anterior cross-vein more basal than end of first longitudinal; costal spine vestigial; third vein bristly; section III of costa about one and one-fourth times section V; alulæ fringed with hair; calypters whitish, margins fringed with white hair.

Legs.—Dark; all tarsi distinctly shorter than their respective tibiæ. Posterior trochanter without "brush;" femur cylindrical. arched, clothed beneath with long hair that forms a beard posteriorly; anterior face with but two rows of bristles, an upper and an intermediate, latter not developed distally, of lower row a single distal bristle present; posterior face without ventral row of bristles; tibia curved, anterior and posterior faces each with a very thick beard of very long, coarse hairs extending full length of tibia, latter somewhat the stronger; fourth tarsal segment at least one-half fifth. Middle femur clothed beneath nearly to distal extremity, especially posteriorly, with long hair; anterior ventral row of short bristles complete, posterior row represented only by a few short bristles on about distal fifth; tibia clothed beneath on its distal half or slightly more with long, dense hair that becomes coarser and beard-like anteriorly and posteriorly; submesotibial bristle absent. Ventral surface of anterior coxa with an irregular row of bristles at each side and anteriorly with others between them; tibia with a beard-like line of short hairs distally on posterior face (probably absent in small specimens).

Chætotaxy.—Anterior dorsocentrals slightly reclinate, not weaker than anterior postsuturals; anterior acrostichal absent; last two pairs posterior dorsocentrals strong, anterior to these several pairs that are mostly very weak and scarcely distinguishable from vestiture of scutum; prescutellar acrostichals present; scutellar apicals present; three sternopleurals, middle one weak; lower sternopleura with a single row of bristles, otherwise clothed with long hair.

Abdomen.—Somewhat conical; clothed above with short, reclinate bristles, beneath with somewhat longer, more erect hair.

Ventral plates as a whole, with their sides slightly converging posteriorly though they may appear approximately parallel; vestiture decreasing in length posteriorly, that of third very short and erect. Posterior margin of fourth notum of same colour as genital segments. Fifth ventral plate (v. p. 5) typical.

Chætotaxy.—Second segment without marginal bristles, third with two; fourth with complete row ending ventrally in long hairs.

Genital Segments.—Prominent; dull orange; vestiture of both equally long. First (9 s.1), large, in profile slightly arched, marginal bristles absent; second (9 s.2), rotund, not flattened; anal area small, its upper limit not extending to middle of posterior surface. Forceps darkened, tip very strongly bent forward, in profile vestiture extends to forward bend, prongs approximated to bend.

Genitalia.—Head of penis large and its structure complicated. Tips of posterior claspers (a.c. and p.c.) bent forward, flattened dorso-ventrally. Accessory plates hairy (a.c.).

(♀) Not known.

Described from 1 male specimen.

Range.—Type specimen taken at Niagara Falls, N.Y.

Aside from the striking difference between this subspecies and *Sarcophaga fulvipes* (Macquart), the point of greatest interest is the extremely heavy beards of the hind tibiæ, which are the most striking of any species known to the writer. The hairiness of the middle tibia is also unusually long and abundant. Considering the extreme weakness of the middle sternopleural bristle, probably specimens will be found with this lacking, in fact, of the two specimens of *S. fulvipes fulvipes* examined, one has two sterno-pleurals on each side, the second two one side, three on the other. Comparatively, the posterior or lower calypter is very large.

The single specimen described belongs to the collection of C. W. Johnson, of Boston, as does one of the two specimens of *S. fulvipes fulvipes* examined. The latter were taken at St. Augustine, Florida. The genitalia of both subspecies are identical in all respects. The advisability of giving this specimen subspecific ranking may perhaps be questioned, but it seemed to me wiser to err in so doing than that such an extreme variation should be lost sight of. It may be a case of melanism.

S. fulvipes fulvipes Macquart differs from the subspecies just described in the following characters; sides of frontal vitta parallel or slightly converging backward (should probably be same variation in *dissidia*); second antennal segment dull orange; palpi light (dull orange); hairs covering anterior spiracle mostly grayish, bases dark; those of anterior margin of posterior spiracle dark at base only; those of spiracular cover yellowish, perhaps faintly darkened basally; epaulets dull orange, brownish basally (*Ravinia*-like); coxæ, trochanters, femora and tibiæ of all legs dull orange, tarsi brown or brownish orange; anterior dorsocentrals not differentiated except that one or two show anteriorly; anterior postsutural dorsocentrals not differentiated; two or three sternopleurals, middle one weak if three are present; first genital segment with or without marginal bristles, if present very slender and hair-like, several each side of centre; forceps only darkened distally.

The most striking of the differences above noted is the dull orange colour of the second antennal segments, palpi, epaulets and first four segments of the legs. Though all the anterior dorsocentrals are differentiated in the subspecies *dissidia*, this may be a variable character; the absence of marginal bristles on the first genital segment may perhaps be variable. In the smaller of the two specimens of *fulvipes* the bearded character of the middle tibiæ is far less distinct, the anterior tibia lacks a beard-like line of short hairs distally, the posterior beard of the hind tibia is much stronger than the anterior, and the ventral surface of the anterior coxa has an irregular row of bristles at each side only.

AN INTERESTING CASE OF INSTINCT.

BY L. M. STÖHR, ST. ALEXANDER'S COLLEGE, IRONSIDE, QUE.

While collecting last fall branches of Sumach which, on account of their great medullar development, often shelter different kinds of aculeate Hymenoptera, I was fortunate enough to find one that furnishes a striking example of instinct. The stalk referred to had been used as a dwelling by several Hymenoptera, as might be seen from the old cells, whose location is still perfectly noticeable. Later on a woodpecker, having remarked the presence